

Application No. 10/645,333
Filed: August 21, 2003
TC Art Unit: 1742
Confirmation No.: 7603

AMENDMENT TO THE CLAIMS

1. (Currently Amended) A method for producing by injection molding a composite metal product containing a carbon nano material and a metal material, comprising the steps of:

mixing the carbon nano material with the metal material in a powder state;

compressing a resultant mixed material to a sheet-shaped solid material by a hot press;

forming said sheet-shaped solid mixed material into granules such as chips, pellets, and the like;

melting the metal in the granules and kneading the metal and the carbon nano materials to form a composite material and injecting the composite material into a mold to form the composite metal product by using an injection machine; and

obtaining the composite metal product.

2. (Original) The method according to claim 1, wherein the melting and kneading step and the injecting step are performed by using an inline screw type injection machine or a screw type preplasticization injection machine.

3. (Previously Presented) The method according to claim 1, wherein the metal material comprises a low melting point metal material.

4. (Previously Presented) A composite metal product containing a carbon nano material and a metal material, wherein said composite metal product is obtained by the method according to claim 1.

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5. (Previously Presented) The method according to claim 2, wherein the metal material comprises a low melting point metal material.

6. (Previously Presented) A composite metal product containing a carbon nano material and a metal material, wherein said composite metal product is obtained by the method according to claim 2.

7. (Previously Presented) A composite metal product containing a carbon nano material and a metal material, wherein said composite metal product is obtained by the method according to claim 3.

8. (Previously Presented) A composite metal product containing a carbon nano material and a metal material, wherein said composite metal product is obtained by the method according to claim 5.

9. (New) The method according to claim 1, wherein the step of injecting the composite material into a mold to form the composite metal product further comprises forming a composite metal product having one or more of the properties of high heat conductivity, low friction, high molding accuracy and high uniform quality.

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10. (New) The composite metal product of claim 4, wherein the composite metal product has one or more of the properties of high heat conductivity, low friction, high molding accuracy and high uniform quality.

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